

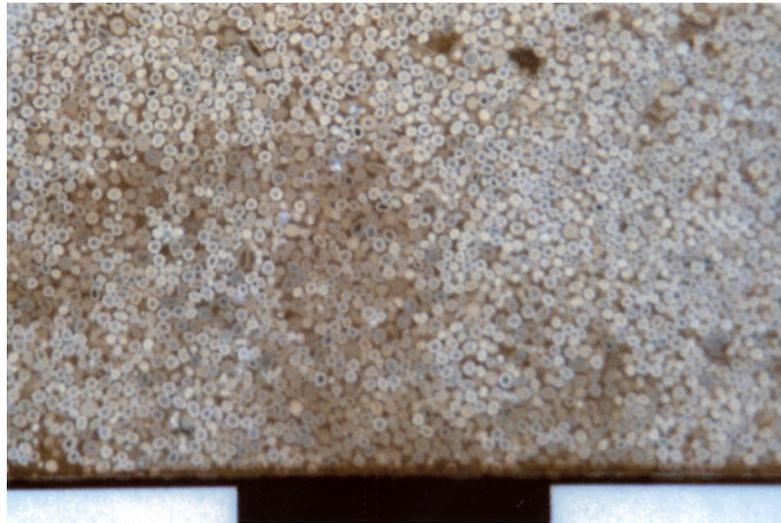
oolite (Figure 2.17 & 2.18b). This weathered outcrop is light to yellowish gray (N7-5Y 7/2). Other oolites to the south and southwest are composed of single, thin (15 to 55 cm) beds that show no cross-bedding. Cross-bed measurements taken in the north, indicate two dominant paleocurrent directions, one to the southeast and the other to the northwest (Figure 2.18). Ooid grainstones are also present as thin accumulations that are not cross-bedded.

Ooid sizes in ooid grainstone subfacies range from 0.5-1.5 mm. The deposits are well sorted and overpacked with slight grain suturing in places. Ooid cortices are dominantly fine quartz grains and skeletal fragments. Coarse-grained fossil material is rare to absent within the oolite grainstones. Fossil fragments, commonly encrusted by algae, are common. Cements are composed of equant, blocky calcite, and there is slight micritization of ooids and other grains. Oomoldic porosity is well developed in the northernmost ooid grainstones where ooid cortices have been leached away.

The oolitic, peloidal packstone subfacies are massively bedded accumulations that show no preserved sedimentary structures. Ooid and peloid sizes range from 150 to 1,000 microns and sorting is generally poor to moderate. Ooid cortices are unidentifiable due to replacement by blocky, equant calcite spar. Micrite envelopes on ooids are common and commonly completely micritize the grains (Figure 2.19).

Keystone vugs are common in the oolite, peloid packstone facies. These fenestrate and other interparticle pore spaces are lined with micrite cement that shows meniscus fabrics and fabrics similar to pendant cement. There is also a later isopachous fringe of bladed calcite cement around the grains and lining vugs. The final pore fill is coarse calcite spar or in some cases coarse baroque dolomite (Figure 2.19).

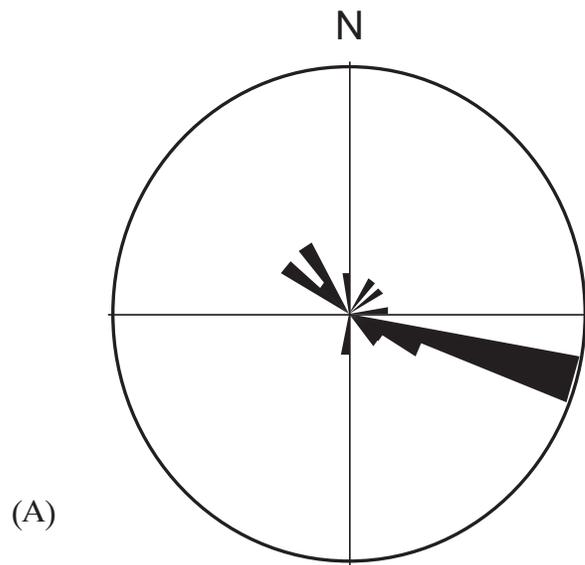
All occurrences of oolite are virtually free of shale or fine siliciclastic material. There are no shale partings between bedding planes and no diffuse argillaceous material.



**Figure 2.16.** Detail of ooid grainstone from locality C6. Ooids in this locality (see Figure 2.1 for locality map) are well sorted and smaller relative to ooids found to the north. Scale bars are 1 cm each.



**Figure 2.17.** Outcrop of cross-bedded ooid grainstone in lower Farley at locality MCI (see Figure 2.1 for locality map).



**Figure 2.18.** (A) Rose diagram illustrating paleocurrent directions as measured from cross-bed orientation data. Based on 20 measurements collected from the lower Farley oolite at locality MCI. (B) Outcrop photo of cross-bedded oolite at locality MCI (see figure 2.1 for locality map). Note the variable cross-bed directions.

